WEST

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L1: Entry 2 of 2 File: DWPI Oct 24, 2001

DERWENT-ACC-NO: 1995-071777
DERWENT-WEEK: 200236

TITLE: Semiconductor device prodn. - involves using e.g. nickel which acts as catalyst to promote growth of amorphous silicon@ film in direction parallel to substrate surface

INVENTOR: MIYANAGA, A; OHTANI, H ; TERAMOTO, S

PRIORITY-DATA: 1993JP-0166117 (June 12, 1993)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
KR 297878·B	October 24, 2001		000	H01L029/78
JP 06349735 A	December 22, 1994		014	H01L021/20
CN 1115499 A	January 24, 1996		000	H01L021/02
US 5932893 A	August 3, 1999		000	H01L029/76

INT-CL (IPC): H01L 21/02; H01L 21/20; H01L 21/324; H01L 21/336; H01L 21/82; H01L 27/02; H01L 29/02; H01L 29/76; H01L 29/78; H01L 29/784

ABSTRACTED-PUB-NO: JP 06349735A
BASIC-ABSTRACT:

The semiconductor device manufacturing method involves the deposition of a silicon oxide film (102) forming the ground film on a glass substrate (101). The top surface of the glass substrate is masked by a mask film (103). A specific domain (100) on the ground film is exposed by etching and a small quantity of an element such as nickel is introduced into the domain. The nickel gp. element acts as a catalyst and promotes the growth of an amorphous silicon film in the crystallisation direction (105) which is parallel to the surface of the substrate above the ground film.

USE/ADVANTAGE - For use in TFT. Obtains mobile device which carries out operation at high speed.
ABSTRACTED-PUB-NO:

US 5932893A EQUIVALENT-ABSTRACTS:

The semiconductor device manufacturing method involves the deposition of a silicon oxide film (102) forming the ground film on a glass substrate (101). The top surface of the glass substrate is masked by a mask film (103). A specific domain (100) on the ground film is exposed by etching and a small quantity of an element such as nickel is introduced into the domain. The nickel gp. element acts as a catalyst and promotes the growth of an amorphous silicon film in the crystallisation direction (105) which is parallel to the surface of the substrate above the ground film.

USE/ADVANTAGE - For use in TFT. Obtains mobile device which carries out operation at high speed.

Search Results - Record(s) 1 through 1 of 1 returned.

1. Document ID: JP 05109737 A ,

Relevance Rank: 99

Entry 1 of 1 File:DERWENT May 19, 1999

DERWENT-ACC-NO: 1993-178598

DERWENT-WEEK: 199322

TITLE:
Thin film transistor mfr. - in which gettering layer absorbs crystal defects or impurities in semiconductor thin film by annealing NoAbstract

PATENT-ASSIGNEE: CASIO COMPUTER CO LTD[CASK]

PRIORITY-DATA: 1991JP-0297647 (October 18, 1991)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 05109737 A	April 30, 1993	N/A	004	H01L 021/322

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
JP05109737A	N/A	1991JP-0297647	October 18, 1991

IPC: H01L021/322; H01L029/784
ABSTRACTED-PUB-NO:JP05109737A
EQUIVALENT-ABSTRACT:

CHOSEN-DRAWING:Dwg.1/4

TITLE-TERMS:
THIN FILM TRANSISTOR MANUFACTURE GETTER LAYER ABSORB CRYSTAL DEFECT IMPURE SEMICONDUCTOR THIN FILM ANNEAL NOABSTRACT

DERWENT-CLASS: L03 U11

CPI-CODES: L04-C02D; L04-E01;

EPI-CODES: U11-C18A1;

SECONDARY-ACC-NO:
CPI Secondary Accession Numbers:C1993-079688
Non-CPI Secondary Accession Numbers:N1993-136899

DERWENT-ACC-NO: 1996-430484
DERWENT-WEEK: 200033

TITLE: Semiconductor thin film prodn. for active matrix liq. crystal optical appts. - by heating 2nd amorphous silicon@ film on 1st crystallised silicon@ film by spreading remaining nickel@ film and forming 2nd crystallised silicon@ film

INVENTOR: MIYANAGA, A; OHTANI, H ; TERAMOTO, S ; YAMAZAKI, S

PATENT-ASSIGNEE: SEMICONDUCTOR ENERGY LAB[SEME]

PRIORITY-DATA: 1994JP-0259117 (September 29, 1994)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6071766 A	June 6, 2000		000	H01L 021/00
JP 08213316 A	August 20, 1996		014	H01L 021/20
US 5789284 A	August 4, 1998		000	H01L 021/00

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
US 6071766A	Div ex		
1995US-0536977			September 29, 1995
US 6071766A	N/A		
1998US-0115838			July 15, 1998
US 6071766A	Div ex	US	
5789284	N/A		
JP 08213316A	N/A		

1995JP-0271703 September 26, 1995
US 5789284A N/A
1995US-0536977 September 29, 1995

INT-CL (IPC): G02F001/136; H01L021/00 ;
H01L021/20 ; H01L021/322 ;
H01L021/326 ; H01L021/336 ; H01L021/84 ;
H01L027/12 ; H01L029/786

ABSTRACTED-PUB-NO: JP 08213316A
BASIC-ABSTRACT: Prodn. involves introducing Ni into an amorphous Si film (103)
which is formed over a glass substrate (101). The Ni crystallises the
amorphous Si film by heating it. After forming the crystallized silicon film
(105), some amt. of Ni is kept in the surface of crystallized Si film. An
oxide film (106) is formed over the crystallised silicon film which diffuses
the remaining Ni. Another amorphous Si film (107) is then formed over the
oxide film. Remaining nickel is spread with 2nd amorphous Si film by heating
process and forms 2nd crystalline silicon film (108).

ADVANTAGE - Lowers Ni density of crystallised Si film. Prevents bad influence.

ABSTRACTED-PUB-NO: US 5789284A
EQUIVALENT-ABSTRACTS: Prodn. involves introducing Ni into an amorphous Si film
(103) which is formed over a glass substrate (101). The Ni crystallises the
amorphous Si film by heating it. After forming the crystallized silicon film
(105), some amt. of Ni is kept in the surface of crystallized Si film. An
oxide film (106) is formed over the crystallised silicon film which diffuses

the remaining Ni. Another amorphous Si film (107) is then formed over the
oxide film. Remaining nickel is spread with 2nd amorphous Si film by heating
process and forms 2nd crystalline silicon film (108).

ADVANTAGE - Lowers Ni density of crystallised Si film. Prevents bad influence.

US 6071766A

Prodn. involves introducing Ni into an amorphous Si film (103) which is formed
over a glass substrate (101). The Ni crystallises the amorphous Si film by
heating it. After forming the crystallized silicon film (105), some amt. of Ni
is kept in the surface of crystallized Si film. An oxide film (106) is formed
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amorphous Si film (107) is then formed over the oxide film. Remaining nickel
is spread with 2nd amorphous Si film by heating process and forms 2nd
crystalline silicon film (108).

ADVANTAGE - Lowers Ni density of crystallised Si film. Prevents bad influence.

CHOSEN-DRAWING: Dwg.1/9

TITLE-TERMS:
SEMICONDUCTOR THIN FILM PRODUCE ACTIVE MATRIX
LIQUID CRYSTAL OPTICAL APPARATUS
HEAT AMORPHOUS SILICON@ FILM CRYSTAL SILICON@ FILM
SPREAD REMAINING NICKEL@
FILM FORMING CRYSTAL SILICON@ FILM

DERWENT-CLASS: L03 P81 U11 U14

CPI-CODES: L04-C03; L04-C04; L04-C12A; L04-C16;

EPI-CODES: U11-C18A1; U14-H01A; U14-K01A2B;

SECONDARY-ACC-NO:
CPI Secondary Accession Numbers: C1996-135177
Non-CPI Secondary Accession Numbers: N1996-362849